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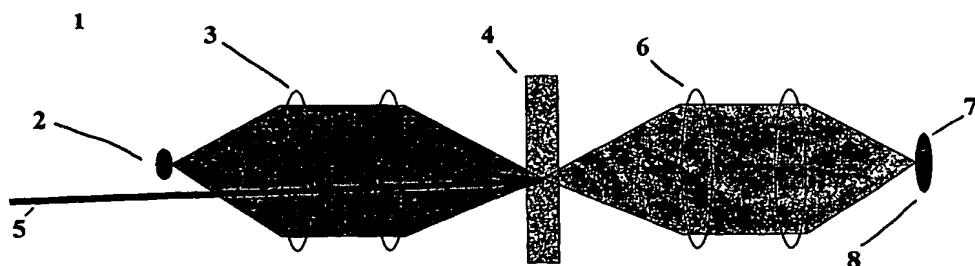
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(71) Applicant (for all designated States except US): CAMBRIDGE UNIVERSITY TECHNICAL SERVICES LTD. [GB/GB]; The Old Schools, Trinity Lane, Cambridge CB2 1TS (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SHEN, Yaochun [CN/GB]; 7 George Nuttall Close, Cambridge CB1 1YE (GB). DAVIES, Alexander, Giles [GB/GB]; 3 The Crescent, Adel, Leeds LS16 6AA (GB). LINFIELD, Edmund, Harold [GB/GB]; 10 St. Peter's Road, Coton, Cambridge CB3 7PR (GB).

(54) Title: TERAHERTZ SPECTROSCOPY



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(57) **Abstract:** A terahertz spectroscopy system comprises a terahertz source for illuminating, in use, a sample with a pulse of radiation in the terahertz frequency range. Excitation means provides excitation energy in the form of an electromagnetic or acoustic wave during illumination of the sample by the terahertz source and a terahertz sensor receives energy from the illuminated sample. Processing means receives signals from the terahertz sensor and processes them to provide an output representative of the terahertz spectrum received by the sensor.